

Arkansas Comprehensive Testing, Assessment, and Accountability Program

# Released Item Booklet

# Benchmark Examination Grade 4

April 2007 Administration

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#### PART I Overview—2007 Benchmark Grade 4

The criterion-referenced tests implemented as part of the **Arkansas Comprehensive Testing**, **Assessment**, and **Accountability Program** (ACTAAP) are being developed in response to Arkansas Legislative Act 35, which requires the State Board of Education to develop a comprehensive testing program that includes assessment of the challenging academic content standards defined by the Arkansas Curriculum Frameworks.

As part of this program, all Grade 4 students in Arkansas public schools participated in the *Grade 4 Benchmark Examination* in April 2007.

This *Released Item Booklet* for the *Grade 4 Benchmark Examination* contains test questions or items that were asked of students during the April 2007 operational administration. The test items included in Part II of this booklet are those items that contributed to the student performance results for that administration.

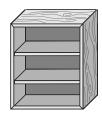
Students were given approximately two hours each day to complete assigned test sessions during the three days of testing in April 2007. Students were permitted to use a calculator for the Mathematics items (both multiple-choice and open-response), with the exception of questions 1–8 in this *Released Item Booklet* (items 1–10 in the test booklet). Students were also supplied with a reference sheet to be used during the mathematics sessions so that all students would have equal access to this information during testing. (See the reference sheet on page 23 of this booklet.) All of the Mathematics, Reading, and Writing multiple-choice items within this booklet have the correct response marked with an asterisk (\*). The open-response questions for Mathematics and Reading and the two essay prompts for Writing are listed with scoring guides (rubrics) immediately following. These rubrics provide information on the scoring model used for each subject, with the scoring model for Writing defining the overall curricular and instructional link for that subject with the Arkansas *English Language Arts Curriculum Framework*. The domain scoring model, implemented within Arkansas for a number of years, illustrates the appropriate instructional approaches for Writing within the state.

These frameworks have common distinct levels: *Strands* to be taught in concert, *Content Standards* within each Strand, and *Student Learning Expectations* within each Content Standard. Abridged versions of the Arkansas *Mathematics Curriculum Framework*, Arkansas *English Language Arts Curriculum Framework—Reading Strand*, and Arkansas *English Language Arts Curriculum Framework—Writing Strand* can be found in Part III of this booklet. It is important to note that these abridged versions list only the <u>predominant</u> Strand, Content Standard, and Student Learning Expectation associated with each item. However, since many key concepts within the Arkansas Curriculum Frameworks are interrelated, in many cases there are other item correlations or associations across Strands, Content Standards, and Student Learning Expectations.

Part III of the *Released Item Booklet* also contains a tabular listing of the Strand, Content Standard, and Student Learning Expectation that each question was designed to assess. The multiple-choice and open-response items found on the *Grade 4 Benchmark Examination* were developed in close association with the Arkansas educational community. Arkansas teachers participated as members of Content Advisory Committees for each subject area, providing routine feedback and recommendations for all items. Part III of the *Released Item Booklet* provides Arkansas educators with specific information on how the *Grade 4 Benchmark Examination* items align or correlate with the Arkansas Curriculum Frameworks to provide models for classroom instruction.

#### **CALCULATOR NOT PERMITTED—ITEMS 1-8**

1. Which term describes the relationship of the bookcase shelves?



- \* A. parallel
  - B. intersecting
  - C. line segment
  - D. perpendicular
- **2.** The pictograph below represents the number of pies each fourth-grade teacher made for the bake sale.

Teacher	Number of Pies Baked
Mrs. McLain	
Ms. Rawls	000
Mr. Levitt	00
Mr. Tach	000

Key	
$\bigcirc$ = 2 pies	

How many pies did Mrs. McLain make for the bake sale?

- A.  $2\frac{1}{2}$
- B.  $3\frac{1}{2}$
- \* C. 7
  - D. 12

**3.** The frequency table below shows how students in Ms. Wheeler's class voted to name their class pet.

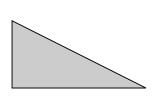
#### **Votes for Our Hamster's Name**

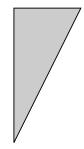
X				
X				
X				X
X				X
X	X		X	X
X	X		X	X
X	X	X	X	X

Spike Fuzzy Squirmy Snowball Happy

How many more students voted for Spike than for Fuzzy and Squirmy combined?

- A. 1
- \* B. 3
  - C. 4
  - D. 7
- **4.** If Alan combines the two triangles below, what type of parallelogram could he make?



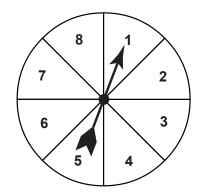


- A. trapezoid
- B. rhombus
- \* C. rectangle
  - D. square

**5.** José's school has a week-long spring break starting on March 28. On what date will the school reopen?

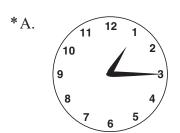
	MARCH					
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		·

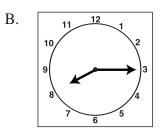
- \* A. April 4
  - B. April 5
  - C. April 11
  - D. March 12
- **6.** What is the probability of spinning a number less than 4 on the spinner below?

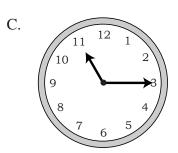


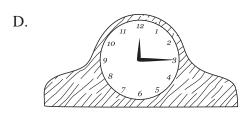
- \* A.  $\frac{3}{8}$ 
  - B.  $\frac{4}{8}$
  - C.  $\frac{8}{4}$
  - D.  $\frac{8}{3}$

- 7. Beth had 9 groups of pencils with 4 in each group. She skip-counted by 4 to find the total number of pencils. What are the last 3 numbers she said?
  - A. 14 23 32
  - B. 20 24 28
  - \* C. 28 32 36
    - D. 32 36 48
- **8.** Which clock below has hands at an angle less than 90 degrees?









#### **CALCULATOR PERMITTED—ITEMS 9-39**

**9.** Pam created the table below using a 2-step rule.

x	y
2	5
3	7
4	9
5	11

What did Pam do to create her set of numbers?

- A. Add 4 to the *x*-value, and then subtract 1.
- \* B. Multiply the *x*-value by 2, and then add 1.
  - C. Add 2 to the *x*-value, and then add 1 more.
  - D. Multiply the *x*-value by 2, and then subtract 1.
- 10. It took Sara 1 hour and 30 minutes to do her homework, and she practiced piano for 45 minutes. What was the total amount of time Sara spent doing homework and practicing piano?
  - A. 1 hour and 15 minutes
  - B. 1 hour and 30 minutes
  - \* C. 2 hours and 15 minutes
    - D. 2 hours and 25 minutes

**IMPORTANT:** This item appeared in the *Grade 4 Benchmark Examination* test booklet as item 12 and again as item 48. Students were required to answer this item correctly **only once**. Answering correctly for item 12 but incorrectly for item 48 (or vice versa) resulted in a student receiving credit for the item. The student's score was not harmed by the duplication of the item.

- 11. José attended a science program that lasted 1 hour and 10 minutes. The program ended at 3:20 P.M. What time did the program begin?
  - A. 4:30 P.M.
  - B. 4:20 P.M.
  - C. 2:20 P.M.
  - \* D. 2:10 P.M.
- **12.** Kim wrote the following number sentence (inequality) on the board.

$$3 \times 6 - 4 < 6$$
 3

Which symbol will make the number sentence true?

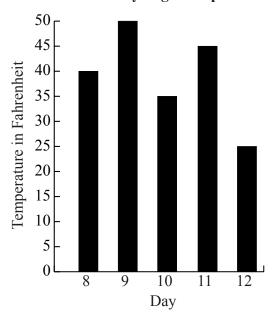
- A. +
- В. -
- \* C. ×
  - D. ÷
- **13.** Which shows the expanded form of the number below?

#### 656,094

- A. 60.000 + 56.000 + 90 + 4
- B. 600,000 + 56,000 + 90 + 4
- C. 600,000 + 50,000 + 6,000 + 94
- \* D. 600,000 + 50,000 + 6,000 + 90 + 4

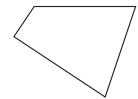
14. Ms. Judge's class recorded the daily high temperatures from January 8 through January 12 and made the bar graph below.

#### **Some January High Temperatures**



- What was the difference in the high for January 9 and the high for January 10?
- A. 10°F
- \* B. 15°F
- C. 35°F
- D. 50°F
- **15.** Which statement **best** describes the polygons below?





- A. Both are regular.
- \* B. Both are irregular.
  - C. Both are congruent.
  - D. Both are pentagons.

- **16.** On Saturday night, Roberto's family watched a movie that lasted 2 hours and 10 minutes. If the movie ended at 9:10 P.M., what time did the movie start?
  - \* A. 7:00 P.M.
    - B. 7:10 P.M.
    - C. 11:00 P.M.
  - D. 11:20 P.M.
- 17. Lea has 12 crayons in a bag: 3 green, 5 blue, 2 yellow, 1 black, and 1 brown. What is the probability that Lea will pull out a yellow crayon if she pulls out one crayon without looking?
  - A.  $\frac{1}{12}$
  - \* B.  $\frac{2}{12}$ 
    - C.  $\frac{2}{10}$
    - D.  $\frac{1}{2}$
- **18.** Which amount equals  $\frac{1}{4}$  of \$1.00?
  - A. \$0.04
  - \* B. \$0.25
    - C. \$0.40
    - D. \$0.50

19. If the pattern below continues, how many squares will be in Figure 5?

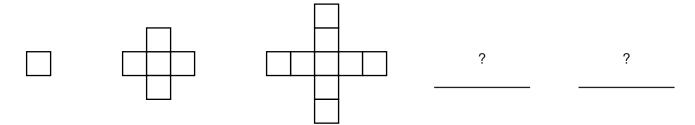


Figure 1

Figure 2

Figure 3

Figure 4

Figure 5

- A. 4
- B. 11
- C. 13
- \* D. 17
- **20.** Ms. Summers has 41 pencils for 9 students. If they all receive the same number of pencils, what is the **greatest** number each student can receive?
  - \* A. 4
    - B. 5
    - C. 32
    - D. 50
- **21.** Eleven students paid a total of \$55 to go on a field trip. Which equation (number sentence) shows how much money each student paid (*n*), if each student paid an equal amount?
  - \* A.  $55 \div 11 = n$ 
    - B.  $11 \times 55 = n$
    - C. 55 11 = n
    - D. 55 + 11 = n

**22.** Maria rolled a number cube 36 times and recorded the numbers she rolled below.

Number	<b>Number of Times Rolled</b>
1	3
2	6
3	8
4	10
5	4
6	5

If Maria rolls the cube another time, which number is she **most** likely to roll?

- \* A. 4
  - B. 6
  - C. 10
- D. 36

23. At the school carnival, Sue played the "Pop-a-Balloon" game. Inside each of 8 inflated balloons was a slip of paper with the name of a prize written on it. The name of the prize and the number of balloons containing that prize is shown in the table below.

Prize	Number of Balloons
cupcake	2
brownie	3
ice cream	1
snow cone	2

What is the probability that Sue will win a brownie?

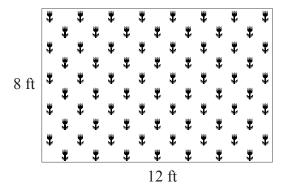
- \* A.  $\frac{3}{8}$ 
  - B.  $\frac{3}{5}$
  - C.  $\frac{5}{8}$
  - D.  $\frac{8}{3}$
- **24.** Marguerite needs 24 squares to make one patchwork quilt. She wants to make 6 quilts. Which mathematical sentence shows how many squares she needs?
  - A.  $24 \div 6 = n$
  - B.  $6 \div 24 = n$
  - \* C.  $24 \times 6 = n$ 
    - D.  $4 \times 24 = n$

**25.** Toby recorded the height of a plant for four weeks. He noticed a pattern.

Week	Height
1	2 inches
2	5 inches
3	11 inches
4	23 inches

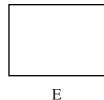
What is the rule for the changes in height?

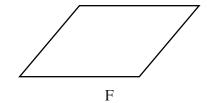
- A. Add 3.
- B. Add 12.
- C. Double each number.
- \* D. Multiply each number by 2 and add 1.
- **26.** Kara put wallpaper on one wall in her room, as shown below. How much wallpaper did she use?

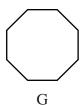


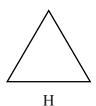
- A. 20 sq ft
- B. 40 sq ft
- \* C. 96 sq ft
  - D. 98 sq ft

27. Which two shapes have at **least** one angle that is greater than 90°?

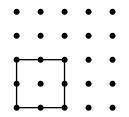








- A. E and H
- \* B. F and G
  - C. G and H
  - D. E and F
- **28.** Brian has \$6.50 in quarters. How many quarters does Brian have?
  - A. 4
  - B. 12
  - C. 24
  - \* D. 26
- **29.** What fractional part is shown on the geoboard below?



- \* A.  $\frac{1}{4}$ 
  - B.  $\frac{3}{4}$
  - C. 1
  - D. 4

**30.** Mr. Teck wrote the sets of numbers below on the board.

What rule did Mr. Teck use to determine the value of the second number in each set?

- A. Add 4 to the first number.
- B. Multiply the first number by 2.
- C. Multiply the first number by 2, and then add 1.
- \* D. Subtract 2 from the first number, and then multiply by 3.
- **31.** What is the rule for the pattern below?

- A. Add 2, and then subtract 1.
- B. Divide by 2, and then add 1.
- C. Multiply by 2, and then add 1.
- \* D. Multiply by 2, and then subtract 1.

**32.** The pictograph below shows the number of books read by each of the fourth-grade classes during a reading contest.

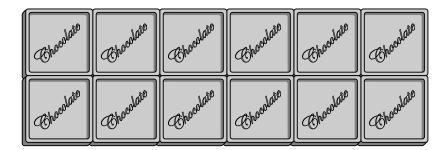
**Books Read for the Reading Contest** 

Teacher	Number of Books Read
Mrs. Racine	99999
Ms. Kirby	0000
Mr. Haywood	999999
Mrs. Ramirez	00000

Key
= 10 books

How many more books did Mr. Haywood's class read than did Ms. Kirby's?

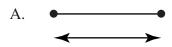
- A. 10
- \* B. 25
  - C. 35
  - D. 60
- **33.** Toby has a candy bar that is divided into 12 squares, as shown below.

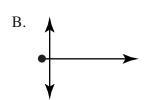


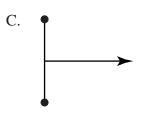
He gave Shelly 2 pieces and Ron 3 pieces. What portion of the candy bar does Toby have left for himself?

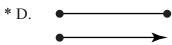
- A.  $\frac{5}{12}$
- \* B.  $\frac{7}{12}$ 
  - C.  $\frac{5}{7}$
  - D.  $\frac{7}{5}$

**34.** Mr. Thompson showed his class a line segment and a ray that are parallel to one another. Which figure did he show them?

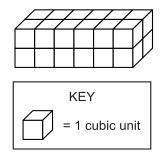








**35.** Thomas built the structure below.



What is its volume?

- A. 12 cubic units
- B. 16 cubic units
- \* C. 24 cubic units
  - D. 28 cubic units

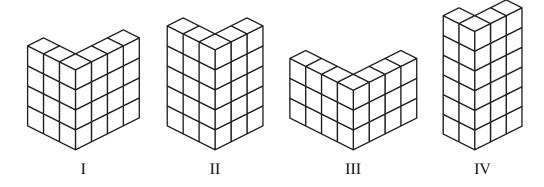
**36.** Lisa must walk the family dog for 30 minutes each day. The table below shows the total amount of time she has walked the dog so far this week.

Day	<b>Total Time for the Week</b>
1	$\frac{1}{2}$ hour
2	1 hour
3	$1\frac{1}{2}$ hours
4	?
5	?
6	?
7	?

According to the table, how much time will Lisa have spent walking the dog by the end of the 7th day?

- A. 2 hours
- B.  $2\frac{1}{2}$  hours
- C. 3 hours
- \* D.  $3\frac{1}{2}$  hours

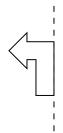
**37.** Abner is building a fort with his friends. If he uses at **least** 25 blocks, which figure could be a model of his fort? (There are no hidden blocks.)



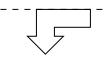
- A. I
- \* B. II
  - C. III
  - D. IV
- **38.** Which shows the figure below after it has been flipped (reflected)?



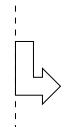
A.



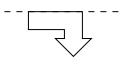
R



C.



\* D



**39.** Which state has a population that is about 2,000,000 greater than that of Arkansas?

2,000,000 greater than that of Arkansas?

Population of Arkansas and Its Border States							
	State	Population					
	Texas	22,118,509					
	Tennessee	5,841,748					
	Missouri	5,704,484					
	Louisiana	4,496,334					
	Oklahoma	3,511,532					
	Mississippi	2,881,281					
	Arkansas	2,725,714					

- A. Tennessee
- B. Missouri
- \* C. Louisiana
  - D. Oklahoma

#### **MATHEMATICS OPEN-RESPONSE ITEM A**

**A.** Cheryl has a new 20-gallon fish tank. She only has a 1-quart pitcher that she will use to fill the tank. She started making the table below to help her find out how many times she would need to fill and pour with her quart pitcher.

Number of Gallons	1	2	3	4	5	6	7	8	9	10
Number of Quarts	4	8								

- 1. In your answer document, copy and complete Cheryl's table, showing the relationship between quarts and gallons.
- 2. How many times will Cheryl need to fill and pour her pitcher in order to fill her 20-gallon tank? Explain your answer using words and/or numbers.

BE SURE TO LABEL YOUR RESPONSES 1 AND 2.

#### **RUBRIC FOR MATHEMATICS OPEN-RESPONSE ITEM A**

SCORE	DESCRIPTION
4	The student earns 4 points. The response contains no incorrect work. The chart in Part 1 contains 1 & 2 gallons and 4 & 8 Quarts. The chart contains "# of gallons" and "# of quarts" labels.
3	The student earns 3 points.
2	The student earns 2 points.
1	The student earns 1 point, or some minimal understanding is shown.  Ex: At least 5 entries are correct or use correct procedures.
0	The student earns 0 points. No understanding is shown.
В	Blank—No Response. A score of "B" will be reported as "NA." (No attempt to answer the item. Score of "0" assigned for the item.)

# **Solution and Scoring**

ırt	Points												
1	2 points possible												
	2 points:	Chart is correct and complete, as shown in the diagram below.  Note: Work is not required.  Note: 1 & 2 Gallons and 4 & 8 Quarts (given) may be missing but are required score of 4. Labels (# of Gallons, # of Quarts) may be missing, but are required a score of 4.  Ex:											
		Number of Gallons	1 2	3	4	5	6	7	8	9	10		
		Number of Quarts	4 8	12	16	20	24	28	32	36	40		
	OR 1 point:	• 1 or more #s are incomplete or Correct procedure we entry for # of gallon Ex:	correctused:	due to 4 is ad	o one	e calc to all	ulatio	on, c	ounti	ing o		•	
		Response contains	1 calc	ılatior	erro	r.	Т	ı	T	T		T	
		Number of Ga	allons	1	_	3	4	5	6	7	8	9	10
		Number of Q				12	16	20	23	27	31	35	39
		• Chart is incomplete Ex:  Number of Garage Number of Quantum Numb	: One		is mi								
	Note: Do no	The # of Quarts (12 with corresponding Ex:  Number of Quarter of	# of C	Gallon:	20	24	28	32	36	40	]		

Part	Points						
2	2 points possible						
	1 point:	Correct answer: 80, or correct answer based on calculation in Part 1.					
	AND						
	1 point:	<ul> <li>Correct and complete procedure shown and/or explained.</li> <li>Work may contain a calculation error or may be based on a calculation, counting, or copy error in Part 1.</li> <li>Give credit for the following or equivalent:</li> <li>20 × 4 = # (4 quarts/gallon, has 20 gallons), or</li> <li>40 (or # of quarts for 10 gallons in Part 1) × 2 = #, or</li> <li>The chart is extended to 20 gallons and is completed correctly, or multiples of 4 from 44 to 80 are listed: 44, 48, 52, 56, 60, 64, 68, 72, 76, 80 (may be based on incorrect entry in Part 1), or</li> <li>10/40 = 20/x, x = #, or</li> <li>"The chart shows that it would take 40 quarts to fill a 10-gallon tank. A 20-gallon tank is 2 times larger, so it would need two times as much water so I doubled 40."</li> </ul>					
		Note: Do not give credit for incomplete work or explanation. Ex: "I counted by 4's"					

#### **MATHEMATICS OPEN-RESPONSE ITEM B**

- **B.** Susan wrote the clues below to describe a mystery shape.
  - It is a quadrilateral.
  - It has only one set of parallel sides.
  - It has no right angles.
  - It has only one line of symmetry.

You may use your pattern blocks to help answer Parts 1 and 2.

- 1. In your answer document, draw and name Susan's mystery shape.
- 2. Draw and label a rhombus, and give three "mystery shape" clues for it.

BE SURE TO LABEL YOUR RESPONSES 1 AND 2.

#### **RUBRIC FOR MATHEMATICS OPEN-RESPONSE ITEM B**

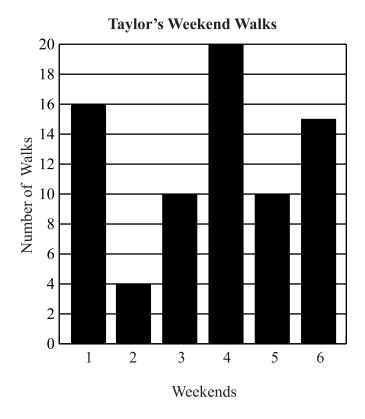
SCORE	DESCRIPTION
4	The student earns 4 points. The response contains no incorrect work. The label "rhombus" is included in Part 2.
3	The student earns 3 points.
2	The student earns 2 points.
1	The student earns 1 point, or some minimal understanding is shown.  Ex: A polygon other than a rhombus is drawn, but 3 clues that correctly describe it are listed in Part 2 (Ex: Drawing of a regular hexagon, 3 sets of parallel sides, 6 sides, and 6 lines of symmetry).
0	The student earns 0 points. No understanding is shown.
В	Blank—No Response. A score of "B" will be reported as "NA." (No attempt to answer the item. Score of "0" assigned for the item.)

#### **Solution and Scoring**

rt	Points						
	2 points possible						
	1 point:	Correct drawing of a trapezoid. Ex:					
	AND	trapezoid					
	1 point:	Correct name of "Trapezoid."					
2	2 points po	ssible					
	2 points:	Correct drawing of a rhombus, as shown below.					
		rhombus					
		Note: The label of "rhombus" is only required for a score of 4.  A drawing of a square is acceptable because a square is a rhombus.					
		And  Response contains any 3 clues that correctly describe a rhombus.  Examples:  I am a quadrilateral.  I am a parallelogram or I am like a diamond.  I have 4 sides, lines, or edges ("edges" is not acceptable for a score of 4).					
		<ul> <li>I have 4 vertices or corners ("points" is not acceptable).</li> <li>The lengths of all of my sides are equal.</li> <li>I am an equilateral.</li> <li>My opposite sides are parallel.</li> <li>I have 2 sets of parallel sides.</li> <li>I have 2 lines of symmetry.</li> <li>I have 2 obtuse angles.</li> <li>I have 2 acute angles.</li> <li>The measures of my opposite angles are equal.</li> <li>My diagonals are perpendicular.</li> <li>My diagonals bisect each other.</li> <li>My diagonals bisect my angles.</li> </ul>					
	OD	Note: If a drawing of a square is given, score clues accordingly.					
	OR 1 point:	<ul> <li>Response contains either of the following:</li> <li>Correct drawing of a rhombus but clues are incomplete or missing, or</li> <li>Drawing of rhombus is missing or not obviously incorrect. 3 correct clues for rhombus are listed with no incorrect clues included.</li> </ul>					

#### **MATHEMATICS OPEN-RESPONSE ITEM C**

**C.** Taylor walks dogs on the weekends to earn money. The graph below shows the number of times Taylor has walked dogs over the last 6 weekends.



- 1. How many more times did Taylor walk dogs during the last 3 weekends than during the first 3 weekends? Explain your answer using words and/or numbers.
- 2. Taylor charges the dog owners \$2.00 per walk. How much money did Taylor earn over the 6 weekends? Explain your answer using words and/or numbers.

BE SURE TO LABEL YOUR RESPONSES 1 AND 2.

# RUBRIC FOR MATHEMATICS OPEN-RESPONSE ITEM C

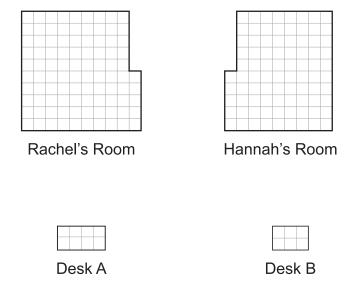
SCORE	DESCRIPTION
4	The student earns 4 points. The response contains no incorrect work. The correct label of "\$" or "Dollars" is included in Part 2.
3	The student earns 3–3 ½ points.
2	The student earns 2–2 ½ points.
1	The student earns ½-1 ½ points, or some minimal understanding is shown.
0	The student earns 0 points. No understanding is shown.
В	Blank—No Response. A score of "B" will be reported as "NA." (No attempt to answer the item. Score of "0" assigned for the item.)

# **Solution and Scoring**

Part	Points						
1	2 points possible						
	1 point:	Correct answer: 15 (more walks).					
	AND 1 point:	Correct and complete procedure shown and/or explained.  The student finds 2 totals (work shown or explained) and the difference.  Work many contains a calculation or complete.					
		Work may contain a calculation or copy error.  Give credit for the following or equivalent:  • 16 + 4 + 10 = 30, 20 + 10 + 15 = 45 (some grouping is acceptable), 45 - 30 = #, or					
	OR	• "I added the # of walks from the 1 <sup>st</sup> 3 weeks and got 30. I added the # of walks from the last 3 weeks and got 45. Next, I found the difference to get my answer."					
	½ point:	Incomplete, but correct, procedure shown and/or explained. Give credit for the following or equivalent:  • 1 <sup>st</sup> 3 weeks: 30, Last 3 weeks: 45, 45-30 = #, or					
		• 1 total correct, 1 total incorrect (no work shown), and correct difference found.					
2	2 points pos	ssible					
	1 point:	Correct answer: (\$) 150.00, or correct answer based on incorrect amount(s) in Part 1.					
	AND						
	1 point:	Correct and complete procedure shown and/or explained.  Work may contain a calculation or copy error or may be based on an incorrect amount in Part 1.  Give credit for the following or equivalent:					
		Note: Work done in Part 1 does not have to be repeated.  • 30 + 45 = 75, 75 x 2 = 150					
	OR	<ul> <li>2 × 16 + 2 × 4 + 2 × 10 + 2 × 20 + 2 × 10 + 2 × 15 = #</li> <li>"There were 30 walks in the 1<sup>st</sup> 3 weeks and 45 in the last 3 weeks. I added those together and multiplied the sum by 2 to get my answer."</li> <li>(T for 1<sup>st</sup> 3 weeks from Part 1) x 2 + (T for last 3 weeks from Part 1) x 2 = #.</li> </ul>					
	½ point:	Incomplete, but correct, procedure shown and/or explained. Give credit for the following or equivalent:					
		<ul> <li>32 + 8 + 20 + 40 + 20 + 30 = # (×2 not shown or explained), or</li> <li>30 + 45 = 75, \$150.00 made (×2 not shown or explained).</li> <li>Note: Do not give any credit for 30 + 45 = 75 only.</li> </ul>					
		Note. Do not give any credit for 50 + 45 - 75 only.					

#### MATHEMATICS OPEN-RESPONSE ITEM D

**D.** Rachel and Hannah are getting new desks for their rooms. Their parents said that the larger desk should go in the larger room. Below is a grid model of each girl's room and the two desks.



- 1. The area of Rachel's room is 95 square feet. What is the area of Hannah's room? Explain your answer using words, numbers, and/or pictures.
- 2. Which girl will get Desk A? Explain your answer using words, numbers, and/or pictures.

BE SURE TO LABEL YOUR RESPONSES 1 AND 2.

#### **RUBRIC FOR MATHEMATICS OPEN-RESPONSE ITEM D**

SCORE	DESCRIPTION
4	The student earns 4 points. The response contains no incorrect work. The correct label of "square feet" is included in Part 1.
3	The student earns 3 points.
2	The student earns 2 points.
1	The student earns 1 point, or some minimal understanding is shown.
0	The student earns 0 points. No understanding is shown.
В	Blank—No Response. A score of "B" will be reported as "NA." (No attempt to answer the item. Score of "0" assigned for the item.)

# **Solution and Scoring**

Part	Points		
1	2 points possible		
	1 point: AND 1 point:	Correct and complete procedure shown and/or explained.  Work may contain a copy, calculation, or counting error ± 1.  Give credit for the following or equivalent:  8 × 10 = 80, 80 + 5 = #, or  (5 × 9) + (5 × 8) = #, or  10 × 9 = 90, 90 - 5 = #, or  "The first row has 5, and there are 8 rows of 10, so I added them all up and got 85," or  The response includes a diagram of the room with squares numbered from 1–85.  Note: Do not give credit for incomplete or vague explanations. Ex: "I counted the squares."	
2	2 points possible		
	2 points:	Correct answer: Rachel, or correct answer based on an incorrect answer in Part 1 with correct and complete work shown and/or explanation that includes both of the following:  • A comparison in words or symbols of the areas of the rooms.  • A comparison of the desks using 1 of the following methods:  • Compares using letters A & B.  Ex: A > B  • Compares areas using #s.  Ex: 8 > 6  • Names the areas of the desks.  Ex: A = 8 and B = 6  Comparative words include "bigger, larger, greater, more than," etc.	
	OR 1 point:	Give credit for the following or equivalent:  • "Rachel gets Desk A because she has the bigger room since 95 > 85. Desk A is bigger than Desk B since 2 × 4 = 8, 2 × 3 = 6, and 8 > 6," or  • "Rachel gets A, Rooms: 95 > 85, Desks: 8 > 6," or  • "Rachel will because she has the bigger room and Desk A is the bigger desk," or  • "Rachel, because her room has more area and A = 8 and B = 6."  Give credit for the following or equivalent:  Work may contain a copy, calculation, or reasonable counting error.  • Correct answer (may be based on incorrect work in Part 1) with incomplete work and/or explanation that includes a comparison of the areas of the rooms OR a comparison of the desks using A & B and/or comparing or naming of the areas of the desks using #s.  Ex: "Rachel gets A since A > B" (no comparison of rooms).  Ex: "Rachel gets Desk A because she has the bigger room—hers is 95 and Hannah's is only 85" (no comparison of desks), or  • Work or explanation does not included comparative symbols or words, but includes the correct answer (Rachel) and all 4 correct areas.  Ex: "Rachel. Rooms: Rachel's is 95, Hannah's is 85. Desks: A is 8, B is 6."  Note: Do not give credit for "Rachel gets Desk A" with no comparison of the areas of the rooms or naming the areas and/or comparison of the desks.	

#### **MATHEMATICS OPEN-RESPONSE ITEM E**

- **E.** Jansen is helping to prepare for a bicycle race. His job is to set up tables with cups of water along the course. There will be 10 tables with 24 paper cups of water on each table.
  - 1. How many paper cups will Jansen need in all? Explain your answer using words and/or numbers.
  - 2. The paper cups come in packages of 48. Based on your answer in Part 1, how many packages of cups will Jansen need? Explain your answer using words and/or numbers.

BE SURE TO LABEL YOUR RESPONSES 1 AND 2.

#### **RUBRIC FOR MATHEMATICS OPEN-RESPONSE ITEM E**

SCORE	DESCRIPTION
4	The student earns 4 points. The response contains no incorrect work. Labels are not required for a score of 4.
3	The student earns 3 points.
2	The student earns 2 points.
1	The student earns 1 point, or some minimal understanding is shown.
0	The student earns 0 points. No understanding is shown.
В	Blank—No Response. A score of "B" will be reported as "NA." (No attempt to answer the item. Score of "0" assigned for the item.)

# **Solution and Scoring**

Part	t Points	
1	2 points possible	
	1 point:	Correct answer: 240 (cups).
	AND 1 point:	Correct and complete procedure shown and/or explained. Work may contain a calculation or copy error.
		Give credit for the following or equivalent:  • 10 × 24 = # cups, or  • Student adds 24 ten times, or  • "I multiplied 10 by 24 to get my answer."
2		
	1 point:	Correct answer: 5 (packages), or correct answer based on calculation error in Part 1.  Note: Answer may be a mixed # or rounded up to the next whole #.
	AND 1 point:	Correct and complete procedure shown and/or explained.  Work may contain a calculation, copy, or counting error or may be based on an incorrect answer in Part 1.  Give credit for the following or equivalent:  • 240 ÷ 48 = # packages, or  • "I divided 240 by 48 to get the # of packages," or  • (# of cups from Part 1) ÷ 48 = # of packages, or  • "Since 24 + 24 = 48, 2 tables will use 1 package. There are 10 tables, so they will need 10/2 = 5 packs," or  • 5 x 48 = 240 (guess and check), or  • 48 + 48 + 48 + 48 + 48 = 240 (guess and check).  Note: Do not give credit for incomplete or vague procedure.

# Mathematics Reference Sheet Grade 4

Use the information below, as needed, to answer questions on the Mathematics test.

Square	Rectangle
Area = <i>side</i> × <i>side</i>	Area = <b>length</b> × <b>width</b>
Perimeter = <b>4</b> × <i>side</i>	Perimeter = <b>length</b> + <b>width</b> + <b>length</b> + <b>width</b>

1 pound (lb) = 16 ounces (oz)

Read the following passage about a kidnapped princess. Then answer multiple-choice questions 1 through 8 and open-response question A.



Once, long ago, Good King Bern ruled a great kingdom. He and his daughter, the wise and beautiful Princess Sara of the long, shining hair, lived in Castle Bor.

Because King Bern was very afraid that his daughter might be lost or hurt, he would not allow her to leave Castle Bor.

One morning, a note was found in the princess's bedroom. It said, "I have been captured by the dread dragon Lightning. Sincerely, Princess Sara."

Good King Bern called all of the knights in the kingdom to Castle Bor. "Brave knights," he said, "my daughter has been kidnapped by the dread dragon Lightning. Who among you will rescue my wise and beautiful princess?"

All of the knights raised their swords. One very tall knight stepped forward. It was Sir Reginald the Strong. "We will bring her back to you, Sire," shouted Sir Reginald.

Suddenly, another knight arrived. He was very short, and his armor didn't fit very well. The knight stepped up beside Sir Reginald and laid his sword before the king.

"I am Sir Aras the Small," the knight said, bowing. The other knights laughed.

- 8 Good King Bern held up his hand. "Laugh not at any knight who has the courage to face the dread dragon Lightning," he said.
- Now, it was said throughout the kingdom that the dragon could melt any opponent with ease. The truth, though, was that the dragon had made up that story himself to keep knights from bothering him with their challenges. Actually, melting people always upset his stomach.

So on the day the knights came to rescue the princess, the dragon simply picked up each one and dropped him into a huge cage with thick, metal bars.

"I will defeat you!" shouted Sir Reginald when his turn came. But even he was dropped into the cage, shining armor and all.

Soon only Sir Aras the Small remained. The small knight put away his sword and walked up to the dread dragon Lightning.

"Why have you caged these knights?" asked Sir Aras.

"They wanted to defeat me," the dragon said.

"Noble dragon," said Sir Aras, bowing. "If I can end these challenges, will you return these knights to their king?"

The dragon rumbled for a few minutes, thinking. "Agreed," he said at last.

And so, Sir Aras the Small led the dread dragon Lightning, pulling the cage full of defeated knights, back to King Bern.

"But what of my daughter?" the king shouted.

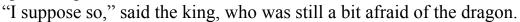
Sir Aras bowed his head and removed his helmet. Long, shining hair tumbled out.

"Princess Sara!" the king cried.

"I'm sorry, Father," said the princess. "I wanted to prove that I could take care of myself. Please let me leave the castle. I want to see more of our beautiful kingdom."

"Of course," said the king.

"And will you also order the dread dragon Lightning free from any knight's challenge?" the princess asked.



In the years to come, Princess Sara and Lightning—nobody called him "dread" any longer—became great friends. Together, they had many adventures and, of course, lived happily ever after.

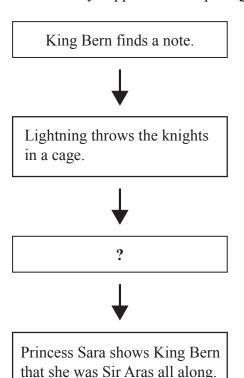




- 1. Why did the author use the words "of course" in the last sentence of the passage?
  - A. Princesses always love adventure.
  - B. The princess and the dragon were unusual friends.
  - \* C. Princesses usually live happily ever after in stories.
    - D. The princess and the dragon would probably have a fight soon.

- **2.** Which statement about the king is supported by the passage?
  - A. He was a lonely man.
  - \* B. He loved his daughter.
    - C. He wanted to challenge the dragon.
    - D. He knew that Sir Aras was Princess Sara all along.

- **3.** Which fact is **most** important to the plot of the passage?
  - A. The princess has very long hair.
  - \* B. The princess pretends to be a knight.
    - C. The dragon is good at fighting knights.
    - D. The dragon is afraid of melting people.
- **4.** The graphic organizer below shows the order of events as they happened in the passage.

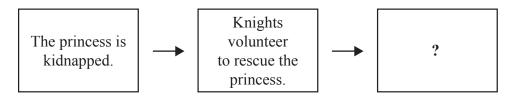


Which sentence **correctly** completes the graphic organizer?

- A. Many of the knights laughed at Sir Aras the Small.
- B. King Bern asked the knights to rescue his daughter.
- C. Princess Sara and Lightning became great friends.
- \* D. Sir Aras asked the dragon to return the knights to the king.

- 5. The last sentence in paragraph 9 states, "Actually, melting people always upset his stomach." Why does the author **most** likely include this sentence in the passage?
  - A. to make the dragon sound meaner
  - \* B. to make the dragon seem less scary
    - C. to suggest that dragons have sensitive stomachs
    - D. to show that the dragon is afraid of the knights' challenges
- **6.** This passage is **most** likely intended to
  - \* A. amuse the reader.
    - B. persuade the reader to visit Castle Bor.
    - C. describe how knights used to defeat dragons.
    - D. compare King Bern to the dragon Lightning.
- 7. According to paragraph 8, how does King Bern respond when the knights laugh at Sir Aras the Small?
  - A. He tells the knights to have courage.
  - \* B. He tells the knights to stop laughing.
    - C. He tells the knights that Sir Aras is really the princess.
    - D. He tells the knights that they must face the dread dragon Lightning.

**8.** Which sentence **best** fits into the empty box?



- A. The king finds a note from his daughter.
- B. The wise and beautiful Princess Sara is born.
- C. The king will not let the princess leave the castle.
- \* D. The princess brings the dragon back to the castle.

# **READING OPEN-RESPONSE ITEM A**

**A.** The cause and effect map below is missing the effects. Describe one effect for each cause. Use specific information from the passage to support your responses.

Cause	Effect
1. The king worried about Princess Sara's safety.	
2. Sir Aras wore armor that did not fit well.	
3. Sir Reginald went to rescue the princess.	
4. Princess Sara saved the knights from the dragon.	

BE SURE TO LABEL YOUR RESPONSES 1, 2, 3, AND 4.

#### **RUBRIC FOR READING OPEN-RESPONSE ITEM A**

SCORE	DESCRIPTION
4	The response correctly describes one effect for each of the four causes using details from the passage to support the response.
3	The response correctly describes three of the effects using details from the passage to support the response.
2	The response correctly describes two of the effects using details from the passage to support the response.
1	The response correctly describes one of the effects using details from the passage to support the response or shows some understanding of the passage.
0	The response is totally incorrect or irrelevant. There is no evidence that the student understands the task, or the response may be off-topic.
В	Blank—No Response. A score of "B" will be reported as "NA." (No attempt to answer the item. Score of "0" assigned for the item.)

Read the following passage about the creation of a set of bronze statues. Then answer multiple-choice questions 9 through 16 and open-response question B.



What has eighteen legs, shines in the sun, and loves children? A set of eight bronze duckling statues with their mother, that's what! They are made for hugging, climbing on, and "feeding." They were created by the sculptor Nancy Schön (pronounced **shern**). She based them on the ducklings in the famous children's book *Make Way for Ducklings*.

The ducklings in the book hatched from the drawing pencil of author Robert McCloskey back in 1941. In the story, the ducklings followed their proud mother around the Public Garden in Boston, Massachusetts. They learned to "walk in a line, to come when they were called, and to keep a safe distance from bikes and scooters and other things with wheels." But the duckling statues started in a very different way almost fifty years later.

Ms. Schön, who had been making sculptures of people for years, noticed that children love to play with animal statues. At the same time, the six-year-old twin boys of an English friend of hers visited the Public Garden. They had read *Make Way for Ducklings*, and they were puzzled. "Mummy, where are the ducks?" they asked.

Ms. Schön's friend suggested that she bring the famous little birds to life. Mr. McCloskey himself was delighted with the idea. He encouraged the sculptor to start by copying his own drawings.

"Just to be different, I chose eight of the poses of the ducks that I liked best," explains Ms. Schön. She then lined them up behind Mrs. Mallard. She wanted to remind people how the ducklings in the book waddled from the Charles River, across busy Beacon Street, and right into the Public Garden.

Deciding how big the ducks should be was an important question. Mr. McCloskey himself came to the art studio to help. To get a better look, they dragged the clay models outside on a snowy February day. Just then a group of children at the preschool next door came out and stopped short in surprise.

Ms. Schön laughs as she remembers. "The children came running and screaming and started to pat and hug them. It was so exciting!" There was no doubt now—the ducklings were perfect. The bronze statues were ready to be made.

In October 1987, two large and sixteen small webbed feet lined up and came to stay in the Boston Public Garden. Mrs. Mallard stands more than three feet tall, and her children—"Jack, then Kack, and then Lack, followed by Mack and Nack and Ouack and Pack and Quack"—trail proudly behind her, waddling on old rounded Boston cobblestones. Their bright eyes sparkle, inviting children of all ages to touch, hug, and play with them, just as Ms. Schön wanted.

- **9.** What does the first sentence in paragraph 2 mean?
  - \* A. Robert McCloskey drew the pictures in *Make Way for Ducklings*.
    - B. Robert McCloskey's duck had ducklings while he was writing a book.
    - C. Robert McCloskey sculpted the ducklings in the Boston Public Garden.
    - D. Robert McCloskey's *Make Way for Ducklings* is a well-known children's book.
- **10.** How did Nancy Schön decide on the poses for the ducks?
  - A. She modeled them after real ducks.
  - B. She let Robert McCloskey pick the poses.
  - \* C. She picked her favorite poses from the book.
    - D. She let the preschool children decide what they liked.

- **11.** Which statement **best** summarizes the passage?
  - A. An artist draws ducklings in a famous children's book.
  - B. The Boston Public Garden is an interesting place to visit.
  - C. Children find some lost ducklings in the Boston Public Garden.
  - \* D. A sculptor creates statues based on a well-known children's book.
- **12.** The title "Ducklings Come Home to Boston" refers to
  - A. Robert McCloskey's pet ducklings.
  - \* B. Nancy Schön's sculptures of ducklings.
    - C. the ducklings that swim in the Charles River.
    - D. the ducklings that return to Boston each spring.

**13.** Which sentence **best** completes the graphic organizer below?



- A. The ducklings cross Beacon Street to pose for the statues.
- B. Robert McCloskey donates the statues to Boston Public Garden.
- C. The February snowstorm ruins the clay models of the ducklings.
- \* D. Nancy Schön copies Robert McCloskey's drawings of the ducklings.
- **14.** Who first suggested that Nancy Schön create statues of the ducklings?
  - A. her children
  - B. Robert McCloskey
  - \* C. an English friend of hers
    - D. directors of the Boston Public Garden
- **15.** What is the main purpose of this passage?
  - A. to convince children to read *Make Way* for *Ducklings*
  - B. to show the reader how to make lifelike statues of ducklings
  - C. to highlight reasons children enjoy playing with animal statues
  - \* D. to explain how the duckling statues came to the Boston Public Garden

- **16.** The **most** likely purpose of the first question in the passage is to
  - \* A. make the reader curious.
    - B. make fun of the duckling statues.
    - C. show that the author has a sense of humor
    - D. show that *Make Way for Ducklings* is a children's book.

# **READING OPEN-RESPONSE ITEM B**

- **B.** Both Robert McCloskey and Nancy Schön created works that have something to do with ducks.
  - 1. Explain one way their works are **alike** and provide one example from the passage to support your answer.
  - 2. Explain one way their works are **different** and provide one example from the passage to support your answer.

BE SURE TO LABEL YOUR RESPONSES 1 AND 2.

#### **RUBRIC FOR READING OPEN-RESPONSE ITEM B**

SCORE	DESCRIPTION	
4	The response provides a description of how the two people's works are alike and how they are different, and uses one example from the passage to support the similarity and one example to support the difference.	
3	The response provides a description of how the two people's works are alike and how they are different, and uses one example from the passage to support either the similarity or difference.	
	Response provides a description of how the two people's works are alike and uses one example from the passage to support the similarity.	
	OR  The response provides a description of how the two people's works are different and uses one example from the passage to support the difference.	
2	OR	
	The response provides a description of how the two people are alike and how they are different but provides no examples in support.	
	OR	
	The response gives two examples that show how they are alike or different without explicitly stating the similarity or difference.	
	The response provides a description of how the two people's works are alike.	
	OR	
1	The response provides a description of how the two people's works are different.	
_	OR	
	The response gives an example that shows how they are alike or different without explicitly stating the similarity or difference.	
0	The response is totally incorrect or irrelevant. There is no evidence that the student understands the task, or the response may be off-topic.	
В	Blank—No Response. A score of "B" will be reported as "NA." (No attempt to answer the item. Score of "0" assigned for the item.)	

Read the following passage, which describes how to make a balloon-powered car. Then answer multiple-choice questions 17 through 24 and open-response question C.

## Make and race a balloon-powered car!

#### What You Need

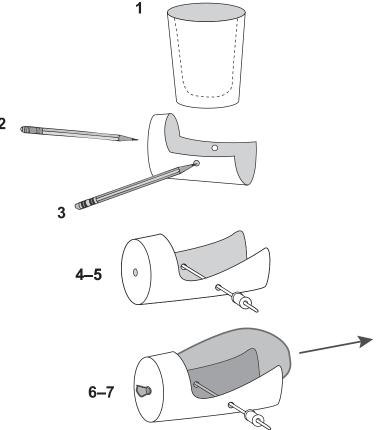
- paper cup (hot-beverage cup made of sturdy cardboard)
- scissors
- pencil
- plastic drinking straw
- 2 wooden spools
- 2 small rubber bands
- balloon

## Car Body

- 1 Cut out half of the cup.
- 2 Using a pencil, <u>poke</u> a hole in the center of the cup bottom. (The neck of a balloon will go through this hole.)
- 3 Using a pencil, **poke** 2 holes in the sides of the cup.

#### Wheels

- 4 Insert a straw through the holes on the side of the cup. Then, slide a spool on each end of the straw. The spools should touch the ground. If they don't, change the position of the holes for the straw.
- **5 Wrap** a rubber band around the end of each straw. The rubber bands will keep the spools from sliding off.



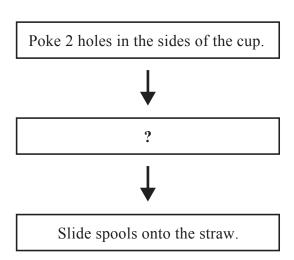
#### **Fuel Tank**

- **6 Push** the neck of the balloon through the hole in the bottom of the cup. The balloon should be lying inside the cup.
- 7 Blow up the balloon. Then put your car on the ground, and let the balloon go!

## **Science Scoop**

Think of what happens when you stretch a rubber band—when you pull it and let go, it snaps back into its original shape. The more you stretch it, the faster and harder it snaps. A balloon is like a rubber band. When you blow air inside a balloon, you stretch the balloon. The more air you blow inside, the more you stretch the balloon. The more the balloon is stretched, the faster the air leaves the balloon. The force of the air leaving the balloon pushes the car forward.

**17.** Which **best** completes the graphic organizer below?



- \* A. Insert the straw into the holes.
  - B. Poke a hole in the center of the cup.
  - C. Put rubber bands on each end of the straw.
- D. Push the neck of the balloon into the hole.

- **18.** What is the purpose of the rubber bands?
  - A. to help the cup keep its shape
  - B. to increase the speed of the car
  - \* C. to keep the spools on the straw
    - D. to fasten the opening of the balloon
- **19.** The author compares a balloon to a rubber band mostly because
  - \* A. they both stretch.
    - B. they are both easy to use.
    - C. they are both made of rubber.
    - D. they both push the car forward.

- **20.** In step 2, why is the word <u>poke</u> **most** likely written in bold letters?
  - A. It is the adjective that describes the cup.
  - \* B. It is the verb that tells what to do to the cup.
    - C. It is the pronoun that modifies the word pencil.
    - D. It is the adverb that tells how to insert the balloon.
- **21.** Which item **correctly** completes the table below?

Parts of a Balloon Car				
car body				
wheels				
?				

- A. straw
- B. pencil
- \* C. fuel tank
  - D. paper cup
- 22. In step 4, the word <u>position</u> means
  - A. size.
  - B. shape.
  - C. number.
  - \* D. location.

- **23.** Which activity would help the reader **most** quickly find how many straws are used in this project?
  - A. reading the first sentence under each bold heading
  - B. reading the information under the bold heading "Science Scoop"
  - \* C. reading the information under the bold heading "What You Need"
    - D. reading the bold words in each of the seven steps in the directions
- **24.** Which question could be **correctly** answered using the information in this passage?
  - A. How fast will the balloon car go?
  - B. How much fuel is needed for the car?
  - \* C. What kind of paper cup is needed for the car?
    - D. What size spools should be used for the wheels?

## **READING OPEN-RESPONSE ITEM C**

- C. This passage uses rubber bands as part of the balloon car.
  - 1. In this project, for what are the rubber bands used? Explain what would **most** likely happen if you did **not** use the rubber bands.
  - 2. In this project, for what is the balloon used? Explain what would happen if you did **not** use the balloon.

Use information from the passage to support your responses.

BE SURE TO LABEL YOUR RESPONSES 1 AND 2.

## **RUBRIC FOR READING OPEN-RESPONSE ITEM C**

SCORE	DESCRIPTION		
4	The response accurately states what the rubber bands are used for and what would happen if they were not used, and accurately states what the balloon is used for and what would happen if you did not use the balloon.		
	The response accurately states what the rubber bands are used for and what would happen if they were not used, and accurately states what the balloon is used for.  OR		
3	The response accurately states what would happen if the balloon were not used.  OR		
	The response accurately states what the rubber bands are used for and what the balloon is used for, and what would happen if you did not use the balloon.		
	The response accurately states what the rubber bands are used for and what would happen if they were not used.		
	OR		
	The response accurately states what the balloon is used for and what would happen if you did not use the balloon.		
2	OR		
	The response accurately states what the rubber bands are for and what the balloon is used for.  OR		
	The response accurately states what would happen if you did not use the rubber bands and what would happen if you did not use the balloon.		
	The response accurately states what the rubber bands are used for.		
	OR		
	The response accurately states what the balloon is used for.		
1	OR		
	The response accurately states what would happen if you did not use the rubber bands.  OR		
	The response accurately states what would happen if you did not use the balloon.		
0	The response is totally incorrect or irrelevant. There is no evidence that the student understands the task, or the response may be off-topic.		
В	Blank—No Response. A score of "B" will be reported as "NA." (No attempt to answer the item. Score of "0" assigned for the item.)		

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## PART II Released Writing Prompts—2007 Benchmark Grade 4

#### PROMPT #1

Your teacher has asked you to write about this topic:

If you could have any animal for a pet, what animal would you choose and why would you choose it?

Before you begin to write, think about the animal you would choose for a pet. **Why** would you choose that animal?

Now write about the animal you would choose for a pet. Be sure you give reasons why you would choose that animal and enough detail so that your teacher will understand.

#### PROMPT #2

If you could go anywhere you wanted, where would you go?

Before you begin to write, think about where you would go. It may be any place, real or imaginary. **Why** do you want to go there?

Now write about where you want to go. Be sure to give reasons why you want to go there and enough description and detail so that the person reading your paper will understand.

## WRITER'S CHECKLIST

- 1. Look at the ideas in your response.
  - Have you focused on one main idea?
  - Have you used enough detail to explain yourself?
  - Have you put your thoughts in order?
  - Can others understand what you are saying?
- 2. Think about what you want others to know and feel after reading your paper.
  - Will others understand how you think or feel about an idea?
  - Will others feel angry, sad, happy, surprised, or some other way about your response? (Hint: Make your reader feel like you do about your paper's subject.)

- Do you have sentences of different lengths? (Hint: Be sure you have a variety of sentence lengths.)
- Are your sentences alike? (Hint: Use different kinds of sentences.)
- 3. Look at the words you have used.
  - Have you described things, places, and people the way they are? (Hint: Use enough detail.)
  - Are you the same person all the way through your paper? (Hint: Check your verbs and pronouns.)
  - Have you used the right words in the right places?
- 4. Look at your handwriting.
  - Can others read your handwriting with no trouble?

#### PART II Released Writing Prompts—2007 Benchmark Grade 4

## **Domain Scoring Rubric**

#### Content (C)

The Content domain includes the focusing, structuring, and elaborating that a writer does to construct an effective message for a reader. It is the creation of a product, the building of a composition intended to be read. The writer crafts his/her message for the reader by focusing on a central idea, providing elaboration of the central idea, and delivering the central idea and its elaboration in an organized text. Features are:

- Central idea
- Elaboration
- Unity
- Organization

#### Style (S)

The Style domain comprises those features that show the writer purposefully shaping and controlling language to affect readers. This domain focuses on the vividness, specificity, and rhythm of the piece and the writer's attitude and presence. Features are:

- Selected vocabulary
- Sentence variety
- Tone

Voice

Selected information

#### **Sentence Formation (F)**

The Sentence Formation domain reflects the writer's ability to form competent, appropriately mature sentences to express his/her thoughts. Features are:

- Completeness Standard word order
- Absence of fused sentences
- Expansion through standard coordination and modifiers
- Embedding through standard subordination and modifiers

#### Usage (U)

The Usage domain comprises the writer's use of word-level features that cause written language to be acceptable and effective for standard discourse. Features are:

- Standard inflections Agreement
- Word meaning
- Conventions

#### Mechanics (M)

The Mechanics domain includes the system of symbols and cueing devices a writer uses to help readers make meaning. Features are:

- Capitalization
- Punctuation
- **Formatting**
- Spelling

#### **Scoring Scale**

Each domain is scored independently using the following scale:

- **4** = The writer demonstrates **consistent**, though not necessarily perfect, control\* of almost all of the domain's features.
- 3 = The writer demonstrates reasonable, but not consistent, control\* of most of the domain's features, indicating some weakness in the domain.
- 2 = The writer demonstrates inconsistent control\* of several of the domain's features, indicating significant weakness in the domain.
- 1 = The writer demonstrates **little** or **no** control\* of most of the domain's features.

\*Control: The ability to use a given feature of written language effectively at the appropriate grade level. A response receives a higher score to the extent that it demonstrates control of the features in each domain.

The application of the scale, using actual student writing, is done with the assistance of a committee of Arkansas teachers, language arts supervisors, and representatives of the Arkansas Department of Education.

#### Non-scoreable and Blank Papers

Compositions are scored, unless they are off-topic, illegible, incoherent, refusals to respond, written in a language other than English, or too brief to assess. A score of "NA" indicates that the student's writing entry was non-scoreable and that entry will receive a score of "0."

- 1. Which sentence is a compound sentence?
  - A. Monica twirled and spun in her music class.
  - B. When school was over, Kayla went for a walk.
  - \* C. We played games outside, and they went for a hike.
    - D. Soccer and basketball are two of my favorite sports.
- 2. Which Web site would be the **best** to use to gather information for a school newspaper article about places of interest in North Carolina?
  - A. www.nc-weather.org
  - \* B. www.visit-nc-now.com
    - C. www.government-nc.com
    - D. www.nc-sports-teams.com
- **3.** The correct way to let the reader know that a new paragraph has started is to
  - \* A. indent the first sentence of the paragraph.
    - B. use a comma in the first sentence of the paragraph.
    - C. ask a question in the first sentence of the paragraph.
    - D. begin each sentence in the paragraph with a capital letter.

**4.** Read Jane's paragraph below.

<sup>1</sup>On Sunday, I <u>went to</u> a local parade with my family. <sup>2</sup>I was surprised to see so many clowns. <sup>3</sup>They were very colorful and funny to watch. <sup>4</sup>One of the clowns had such a silly face that I could not stop laughing. <sup>5</sup>I enjoyed watching the clowns in the parade with my family on Sunday.

A friend suggested to Jane to change the words went to in sentence 1 to something else. Which of the following would be the **best** revision for Jane to make?

- A. go
- B. left
- C. be there
- \* D. attended
- <sup>1</sup>What would a day be like without electricity? <sup>2</sup>Electricity is a kind of energy that is used in many ways. <sup>3</sup>Electricity can make light it can make heat. <sup>4</sup>Lamps, televisions, and computers are some of the things that use electricity.

Which sentence from the paragraph is a runon sentence?

- A. 1
- B. 2
- \* C. 3
  - D. 4

# 6. **My Trip to the Zoo**By Mike

<sup>1</sup>My trip to the zoo last week was full of surprises. <sup>2</sup>I saw many new and unusual animals that I knew nothing about. <sup>3</sup>As I entered the gate, I saw a baby zoo nursery. <sup>4</sup>The small newborns were only a few weeks old and so cute. <sup>5</sup>The guide told us that they would stay in the nursery for several more weeks. <sup>6</sup>I have never seen so many baby animals before. <sup>7</sup>The zoo was a wonderful place to visit. <sup>8</sup>I hope to return to the zoo for another visit soon.

Which sentence tells the central idea of Mike's paragraph?

- A. As I entered the gate, I saw a baby zoo nursery.
- \* B. My trip to the zoo last week was full of surprises.
  - C. The small newborns were only a few weeks old and so cute.
  - D. The guide told us that they would stay in the nursery for several more weeks.

- 7. Which sentence would make the **best** topic sentence for a persuasive paragraph about why Arkansas is a great place to visit?
  - A. Arkansas is officially known as "The Natural State."
  - B. My parents and grandparents were all born in Arkansas.
  - C. Arkansas has the only diamond mine in the United States.
  - \* D. There are many reasons I believe that more people should spend their vacations in Arkansas.
- **8.** Which sentence uses pronouns correctly?
  - \* A. She and I want to play a game.
    - B. Her and I want to play a game.
    - C. Me and her want to play a game.
    - D. Her and me want to play a game.

### The Arkansas Mathematics Curriculum Framework\*

Strands	Content Standards	Student Learning Expectations
1—Numbers and Operations (NO)	Number Sense: Students shall understand numbers, ways of representing numbers, relationships among numbers, and number systems.	<ol> <li>Recognize equivalent representations for the same whole number and generate them by composing and decomposing numbers.         Ex. 1,076 = 1,000 + 70 + 6; 500 + 500 + 25 + 25 + 25 + 1; 250 + 250 + 250 + 250 + 250 + 75 + 1, etc.     </li> <li>Write a fraction to name part of a whole, part of a set, a location on a number line, and the division of whole numbers, using models up</li> </ol>
		to 12/12.  7. Write an equivalent decimal for a given fraction relating to money.  Ex. 1/10 = \$0.10; 1/4 = \$0.25
	Properties of Number Operations:     Students shall understand meanings of operations and how they relate to one another.	Represent and explain division as measurement and partitive division, including equal groups, related rates, price, rectangular arrays (area model), combinations, and multiplicative comparison. Ex.
		<ul> <li>Translate contextual situations involving division into conventional mathematical symbols.</li> </ul>
		Explain how a remainder may impact an answer in a real- world situation.
	Numerical Operations and Estimation:     Students shall compute fluently and	Attain, with and without appropriate technology, computational fluency in multiplication and division, using contextual problems.
	make reasonable estimates.	<ul> <li>two-digit by two-digit multiplication (larger numbers with technology)</li> </ul>
		<ul> <li>up to three-digit by two-digit division (larger numbers with technology)</li> </ul>
		strategies for multiplication and dividing numbers
		performance of operations in more than one way
		estimation of products and quotients in appropriate situations
		relationships between operations
		4. Solve simple problems using operations involving addition, subtraction, and multiplication, using a variety of methods and tools (e.g., objects, mental computation, paper and pencil with and without appropriate technology).
		Use estimation strategies to solve problems and judge the reasonableness of the answer.
2—ALGEBRA (A)	Patterns, Relations, and Functions:     Students shall recognize, describe,	Use repeating and growing numeric and geometric patterns to make predictions and solve problems.
	and develop patterns, relations, and functions.	Determine the relationship between sets of numbers by selecting the rule (2-step rule in words).
	5. Algebraic Representations: Students shall represent and analyze	<ol> <li>Express mathematical relationships using simple equations and inequalities (&gt;, &lt;, =, ≠). Ex. 4 × 5 8 × 2 + 3</li> </ol>
	mathematical situations and structures, using algebraic symbols.	<ol> <li>Use a variable to represent an unknown quantity in a number sentence involving contextual situations and find the value.</li> <li>Ex. Susie bought 48 pencils. If the pencils came in packages of 12, how many packages of pencils did she buy? P = 48 ÷ 12</li> </ol>
	Algebraic Models: Students shall develop and apply mathematical models to represent and understand quantitative relationships.	Create a chart or table to organize given information and to understand relationships and explain the results. Ex. Troy must read independently for 2 hours a week. If Troy reads 20 minutes a day, how long will it take him to read a total of 2 hours?

<sup>\*</sup>The Content Standards and Student Learning Expectations listed are those that specifically relate to the released test items in this booklet.

## The Arkansas Mathematics Curriculum Framework\* (continued)

Strands	Content Standards	Student Learning Expectations		
3—GEOMETRY (G)	Geometric Properties: Students shall analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships.	<ol> <li>Identify regular and irregular polygons, including octagons.</li> <li>Identify, draw, and describe a line, a line segment, a ray, an angle, and intersecting, perpendicular, and parallel lines.</li> <li>Identify and describe intersecting, perpendicular, and parallel lines in problem-solving context.</li> <li>Classify angles relative to 90° as more than, less than, or equal to.</li> </ol>		
	Transformation of Shapes: Students shall apply transformations and the use of symmetry to analyze mathematical situations.	Determine the result of a transformation of a two-dimensional figure as a slide (translation), flip (reflection), or turn (rotation) and justify the answer.		
	Visualization and Geometric Models:     Students shall use visualization, spatial reasoning, and geometric modeling.	Construct a three-dimensional model composed of cubes when given an illustration.     Create new figures by combining and subdividing models of existing figures in multiple ways, and record results in a table.		
4—MEASUREMENT (M)	Systems of Measurement: Students shall identify and use units, systems, and processes of measurement.	<ol> <li>Use a calendar to determine elapsed time from month to month.</li> <li>Solve problems involving conversions between minutes and hours.</li> <li>Determine elapsed time in contextual situations to five-minute intervals with beginning time unknown. Ex. Mary watched a movie for 1 hour and 15 minutes. The movie ended at 8:15. When did the movie begin?</li> <li>Apply money concepts in contextual situations. Ex.         <ul> <li>Determine the better buy.</li> <li>Determine change back with the least amount of currency.</li> <li>Compare money.</li> </ul> </li> <li>Use strategies for finding the area of a rectangle.</li> <li>Use strategies to find the volume (cubic units) of rectangular prisms and cubes.</li> </ol>		
5—DATA ANALYSIS AND PROBABILITY (DAP)	14. Data Representation: Students shall formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them.	Create a data collection plan after being given a topic, and collect, organize, display, describe, and interpret simple data using frequency tables or line plots, pictographs, and bar graphs.		
	15. Data Analysis: Students shall select and use appropriate statistical methods to analyze data.	Represent and interpret data, using pictographs, bar graphs, and line graphs in which symbols or intervals are greater than one.		
	Probability: Students shall understand and apply basic concepts of probability.	Use fractions to predict probability of an event. Ex. There are 5 blue tiles, 3 red tiles, and 2 green tiles. What is the probability of pulling out a green tile?		
		<ol> <li>Conduct simple probability experiments, record the data, and draw conclusions about the likelihood of possible outcomes (roll number cubes, pull tiles from a bag, spin a spinner, or determine the fairness of games).</li> </ol>		

<sup>\*</sup>The Content Standards and Student Learning Expectations listed are those that specifically relate to the released test items in this booklet.

## **Released Items for Mathematics\***

Strands		Content Standards
1— Numbers and Operations (NO)	1. Number Sense: Students shall understand numbers, ways of representing numbers, relationships numbers, and number systems.	
	Properties of Number Operations: Stanother.	tudents shall understand meanings of operations and how they relate to one
	Numerical Operations and Estimatio	n: Students shall compute fluently and make reasonable estimates.
2—ALGEBRA (A)	Patterns, Relations, and Functions: sfunctions.	Students shall recognize, describe, and develop patterns, relations, and
	Algebraic Representations: Students algebraic symbols.	s shall represent and analyze mathematical situations and structures, using
	Algebraic Models: Students shall dequantitative relationships.	velop and apply mathematical models to represent and understand
3—GEOMETRY (G)		I analyze characteristics and properties of two- and three-dimensional ematical arguments about geometric relationships.
	Transformation of Shapes: Students mathematical situations.	shall apply transformations and the use of symmetry to analyze
	Visualization and Geometric Models	: Students shall use visualization, spatial reasoning, and geometric modeling.
4— MEASUREMENT (M)	13. Systems of Measurement: Students shall identify and use units, systems, and processes of measurement	
5—Data Analysis and Probability (DAP)  14. Data Representation: Students shall formulate questions that can be addressed with and display relevant data to answer them.		•
	Data Analysis: Students shall select	and use appropriate statistical methods to analyze data.
	Probability: Students shall understar	nd and apply basic concepts of probability.

Item	Strand	Content Standard	Student Learning Expectation
1	G	8	4
2	DAP	15	1
3	DAP	14	1
4	G	11	2
5	M	13	1
6	DAP	17	1
7	NO	3	4
8	G	8	5
9	А	4	3
10	M	13	2
11	M	13	4
12	Α	5	2
13	NO	1	1
14	DAP	14	1
15	G	8	2
16	М	13	4
17	DAP	17	1
18	NO	1	7
19	А	4	2
20	NO	2	4
21	А	5	3
22	DAP	17	2

Item	Strand	Content Standard	Student Learning Expectation
23	DAP	17	1
24	A	5	3
25	Α	4	3
26	M	13	10
27	G	8	5
28	M	13	5
29	NO	1	4
30	Α	4	3
31	Α	4	3
32	DAP	15	1
33	NO	1	4
34	G	8	3
35	M	13	11
36	Α	6	1
37	G	11	1
38	G	9	1
39	NO	3	5
Α	Α	6	1
В	G	8	2
С	DAP	15	1
D	M	13	10
E	NO	3	3

 $<sup>\</sup>hbox{^*Only the $\underline{\tt predominant}$ Strand, Content Standard, and Student Learning Expectation is listed.}$ 

### The Arkansas English Language Arts Curriculum Framework—Reading Strand\*

Content Standards		Student Learning Expectations		
9.	Comprehension: Students shall apply a variety of strategies to read and comprehend printed material.	1. 4. 5. 7. 8. 9. 10.	Organize prior knowledge and new information to make meaning of the text. Revise mental pictures based on new information from the text. Generate questions that reflect active engagement in the text. Infer the purpose of the text to expand comprehension. Describe how the author's purpose determines the choice of language and information in a text. Use inferences to expand understanding of content knowledge. Sort relevant and irrelevant information based on the purpose of reading. Summarize content of selection, identifying important details and providing details for each important idea.	
10.	Variety of Texts: Students shall read, examine, and respond to a wide range of texts for a variety of purposes.	6.	Use graphic organizers, including main idea/detail maps and outlines, to make meaning of the reading selection.	
11.	Vocabulary, Word Study, and Fluency: Students shall acquire and apply skills in vocabulary development and word analysis to be able to read fluently.	1.	Use context clues to determine the precise meaning of new words.	

<sup>\*</sup>The Content Standards and Student Learning Expectations listed are those that specifically relate to the released test items in this booklet.

## Released Items for Reading\*

Item	Content Standard	Student Learning Expectation	Passage Type
1	9	1	Literary
2	9	9	Literary
3	9	12	Literary
4	10	6	Literary
5	9	4	Literary
6	9	7	Literary
7	9	5	Literary
8	10	6	Literary
Α	9	9	Literary
9	9	8	Content
10	9	5	Content
11	9	12	Content
12	9	8	Content
13	10	6	Content

Item	Content Standard	Student Learning Expectation	Passage Type
14	9	5	Content
15	9	7	Content
16	9	8	Content
В	9	12	Content
17	10	6	Practical
18	9	5	Practical
19	9	9	Practical
20	9	10	Practical
21	10	6	Practical
22	11	1	Practical
23	9	1	Practical
24	9	9	Practical
С	9	9	Practical

<sup>\*</sup>Only the <u>predominant</u> Strand, Content Standard, and Student Learning Expectation is listed.

### The Arkansas English Language Arts Curriculum Framework—Writing Strand\*

	Content Standards		Student Learning Expectations
4.	Process: Students shall employ a wide range of strategies as they write and use different writing process elements appropriately.	2. 4.	Focus on one aspect of a topic. Use available technology to collect information for writing.
6.	Conventions: Students shall apply knowledge of Standard English conventions in written work.	1. 2. 5.	Use a variety of simple, compound, and complex sentences (i.e., completeness and standard word order, etc.).  Eliminate run-on sentences.  Employ standard English usage in writing, including subject-verb agreement, pronoun referents, and parts of speech.  Indicate paragraphs using indention or block style.
7.	Craftsmanship: Students shall develop personal style and voice as they approach the craftsmanship of writing.	1. 3.	Engage the reader by developing a lead and a sense of closure.  Use such descriptive language as action verbs, specific nouns, vivid adjectives, and adverbs to add interest to writing.

<sup>\*</sup>The Content Standards and Student Learning Expectations listed are those that specifically relate to the released test items in this booklet.

## Released Items for Writing\*

Item	Content Standard	Student Learning Expectation
1	6	1
2	4	4
3	6	21
4	7	3
5	6	2
6	4	2
7	7	1
8	6	5

<sup>\*</sup>Only the <u>predominant</u> Strand, Content Standard, and Student Learning Expectation is listed.



Arkansas Comprehensive Testing, Assessment, and Accountability Program

DEVELOPED FOR THE ARKANSAS DEPARTMENT OF EDUCATION, LITTLE ROCK, AR 72201